

Title (en)

QUALITATIVE AND QUANTITATIVE DETERMINATION OF SINGLE VIRUS HAPLOTYPES IN COMPLEX SAMPLES

Title (de)

QUALITATIVE UND QUANTITATIVE BESTIMMUNG VON EINZELVIRUSHAPLOTYPEN IN KOMPLEXEN PROBEN

Title (fr)

DÉTERMINATION QUALITATIVE ET QUANTITATIVE D'HAPLOTYPES DE VIRUS UNIQUE DANS DES ÉCHANTILLONS COMPLEXES

Publication

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Application

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Priority

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Abstract (en)

The present invention provides methods for detecting the presence of at least one revertant virus in a sample containing an attenuated virus by single-molecule real-time (SMRT) sequencing. It further provides methods for the quantitative analysis of a mixture of virus haplotypes in a virus sample by SMRT sequencing. It also provides kits useful in performing said methods.

IPC 8 full level

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CPC (source: EP)

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C-Set (source: EP)

C12Q 1/6869 + **C12Q 2525/161** + **C12Q 2537/143** + **C12Q 2545/114**

Citation (applicant)

- BUTRAPET ET AL., J. VIROL., vol. 74, no. 7, 2000, pages 3011 - 3019
- HUANG ET AL., PLOS NEGL. TROP. DISEASES, vol. 7, no. 1-11, 2013, pages e2243
- DURBIN ET AL., JOURNAL OF INFECTIOUS DISEASES, vol. 207, 2013, pages 957 - 965
- SARCEY ET AL., J. VIROL. METHODS, vol. 246, 2017, pages 75 - 80
- KIVIOJA, NATURE METHODS, vol. 9, 2012, pages 72 - 74

Citation (search report)

- [Y] WO 2017179017 A1 20171019 - TAKEDA VACCINES INC [US]
- [Y] WO 2017117541 A1 20170706 - UNIV NORTHEASTERN [US]
- [Y] WO 2016176091 A1 20161103 - ILLUMINA INC [US]
- [Y] CLAIRE Y.-H. HUANG ET AL: "Genetic and Phenotypic Characterization of Manufacturing Seeds for a Tetravalent Dengue Vaccine (DENVax)", PLOS NEGLECTED TROPICAL DISEASES, vol. 7, no. 5, 30 May 2013 (2013-05-30), pages e2243, XP055130810, ISSN: 1935-2727, DOI: 10.1371/journal.pntd.0002243
- [Y] D. A. DILERNIA ET AL: "Multiplexed highly-accurate DNA sequencing of closely-related HIV-1 variants using continuous long reads from single molecule, real-time sequencing", NUCLEIC ACIDS RESEARCH, vol. 43, no. 20, 16 November 2015 (2015-11-16), pages e129 - e129, XP055241272, ISSN: 0305-1048, DOI: 10.1093/nar/gkv630
- [Y] SIMON ARDUI ET AL: "Single molecule real-time (SMRT) sequencing comes of age: applications and utilities for medical diagnostics", NUCLEIC ACIDS RESEARCH, vol. 46, no. 5, 1 February 2018 (2018-02-01), pages 2159 - 2168, XP055729477, ISSN: 0305-1048, DOI: 10.1093/nar/gky066

Cited by

EP4357464A1; EP4375381A1; WO2024086681A1; WO2024108087A1

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